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ABSTRACT

This study was designed to explore an experienced teacher's thinking and teaching within the social and cultural environment of the classroom. It investigated the thinking, planning, subsequent action and reflection processes and relationships in a real situation of learning. A naturalistic approach was used to investigate the socio-cultural context and events that occurred in the life of the classroom. The participant was a secondary school teacher who teaches language arts in grades 6-12 at a school in a southeastern city. Data were collected through participant observation, extended ethnographic interviews, pre- and post-observation interviews, document analysis, and stimulated recall. The data were analyzed in the constant comparative style. Results demonstrated that: (1) the teacher's teaching was more social than originally anticipated; (2) his experiences as a learner and as a teacher influenced the way he taught, and the way he thought about himself as a teacher; (3) pre-planning and interactive thinking were based on his interpretations and judgments of previous experiences; and (4) the social context of teaching was the basic source of reflective teaching. (Contains 37 references.) (Author/LL)

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ED 376 151

ON THE SOCIAL CONSTRUCTION OF AN EXPERIENCED TEACHER

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ON THE SOCIAL CONSTRUCTION OF AN EXPERIENCED TEACHER

Abstract

This study was designed to explore an experienced teacher's thinking and teaching as it was informed in the social and cultural environment of the classroom. It investigated the processes and relationships among the thinking, planning, and subsequent action and reflection of an experienced teacher in a real situation of learning. A naturalistic approach was used to investigate the socio-cultural context and events that occurred in the life of the classroom. The participant in this study was a secondary school teacher who teaches language arts in grades 6-12 at a school in a southeastern city. The setting was a small school that combines elementary, middle, and high school into one site. Data were collected through participant observation, extended ethnographic interviews, pre -and post-observation interviews, document analysis, and stimulated recall. The data were analyzed in the constant comparative style. The results of the study showed that the teacher's teaching was more social than originally anticipated. His experiences as a learner and as a teacher influenced the way he taught, and the way he thought about himself as a teacher. The teacher's pre-planning and interactive thinking were based on his interpretation and judgments of his previous experiences. The social context of teaching was the basic source of the teacher's reflective teaching.

INTRODUCTION

> Teachers are in a way like actors or actresses. You have to play a role. You might sometimes have to be very authoritarian, very strict, very structured, and some other times you need to be very nurturing very supportive emotionally, and very lenient in particular situations. When I say think of it as "acting," I don't mean it as being false or insincere, but adjusting to a certain situation. If you think of it that way, then you don't get stuck always being the same or always so hard. You have some flexibility.
>
> (Ron, 1992)

Teachers, as Sense Makers

The above description coming from an experienced teacher reflects on the situational, context-driven, and decision-laden character of teaching. The metaphor of "teachers as actors or actresses" that Ron, an experienced language arts teacher and the participant in this study, used is based largely on qualities that unfold his action although it does not explain the rules he uses to switch roles. What Ron does as an experienced teacher does not fit into the metaphor of teachers as technicians or the metaphor of teachers as managers. It reveals another image of the teacher- as "reflective practitioner" (Schon, 1987)--an image which reflects more accurately the art and craft of teaching.

Unfortunately, most research on teachers and teaching has conceptualized teaching not as a process, but as an achievement: teaching is what happens when students learn. The way to build the most useful and reliable knowledge about teaching has been thought to entail identifying behaviors of teachers that, under specified conditions, will universally produce identifiable "learning outcomes" in pupils. It is this underlying conceptualization that is so incompatible with teachers' perspectives of their work, because it fails to take into account the socio-cultural aspects of the classroom system and the centrality of meaning and power in the setting.

This study was designed to explore an experienced teacher's thinking and teaching as it was informed in the social and cultural environment of the classroom. It investigated the processes and relationships among the thinking, planning, and subsequent action and reflection of an experienced teacher in the classroom.

Background: From Teachers as Decision Makers to Teachers as Sense Makers. A Synthesis of Research on Teacher's Thinking

Much of the early research on teachers' thinking and decision making was based on an analogy between teachers' diagnoses and medical diagnoses (e.g., Barrows & Bennett, 1972; Elstein, Shulman, & Sprafka, 1978). It was believed that the major role of teachers was to diagnose children's difficulties and progress and, on the basis of the diagnoses, prescribe effective and appropriate learning tasks for them. This image of the teacher was influenced by theories in cognitive psychology, which in turn were influenced by a communication information-processing model. This influence led to research on teachers' thinking in 1975 that assumed parallel cognitive processes between teachers and physicians (e.g., Fogarty, Wang, & Creek, 1982; Marland, 1977; Morine & Vallance, 1975). The main focus of many of these studies was on the structure and content of teachers' thoughts and sometimes their cognitive processes.

However, many researchers have sought to demonstrate a close parallel between teachers' thought processes and specific models of thinking, especially the decision-making model (Clark & Peterson, 1986; Shavelson & Stern, 1981). Early models of the decision-making process among teachers implied a linear course of action with alternative branches, very similar to the models of diagnostic problem solving in medicine (see Kagan, 1988).

In the past ten years, researchers in the field of teachers' cognition have grown increasingly sensitive to the importance of classroom ecology in attempting to identify teachers' problem-solving strategies (Kagan, 1988). Once researchers began to look closely at the ecology of the classroom, it became clear that teachers work in a context that is complex in terms of multiple activities and continual, unpredictable change. The volume of differential knowledge and the rapid pace with which teachers must access this knowledge suggest a highly specialized form of clinical problem solving.

Hence in recent years, the image of the teacher as decision maker has been replaced with an image in which "sense-making" is the central cognitive activity of teachers. In this view,

teachers not only make decisions but they engage in several activities, including decision making, in order to make meaning for themselves and their students (Clark, 1986). The teacher, as sense-maker, interprets the classroom events and reacts to them based on his/her personal meaning, past experiences, practical rules and principles, and images. This non-rational and immediate interpretation of the moments in the classroom and reactions to them are also referred to as reflection-in-action (Schon, 1983). Thus, the metaphor of teacher as physician is giving way to the image of teacher as sense maker (Clark, 1986) and reflective professional (Schon, 1983).

According to the metaphor of reflective practitioner, teachers possess a body of specialized knowledge acquired through training and experience, and they rely upon this specialist knowledge in their daily work. The problems that professionals must address are often complex and ambiguous, and teachers as professionals must use their expert knowledge to analyze and interpret these problems, make judgments and decisions, and formulate a course of action intended to benefit their clients. This view of the teacher complements the role definition that emphasizes the technical skills of effective teachers[1].

The Idea of Professional Knowledge: Differing Perspectives

Researchers have conceptualized teachers' knowledge in various ways. Shulman (1986a) defined three types of content knowledge: subject matter knowledge, pedagogical knowledge, and curricular knowledge. Clark and Peterson (1986) discussed two types of theories and beliefs held by teachers: teachers' implicit theories[2] and beliefs about students, and teachers' implicit theories of teaching and learning. Schon (1983) used the term "knowledge-in-action" to describe the knowledge that is embedded in the skilled action of the professional.

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[1] Technical skills are based on systematic knowledge that is specialized, scientific, and standardized (Clark & Peterson, 1986).

[2] The term implicit theory refers to teachers' systems of thoughts that are based on rules of thumb, generalizations drawn from personal experience, beliefs, values, biases, and prejudices (Clark, 1988). The implicit theories are not clearly expressed by teachers, but they are inferred and reconstructed by researchers on teacher thinking.

Other approaches defining aspects of teacher knowledge have included terms such as "craft knowledge" (Brown & McIntyre, 1986), practical theories (Sanders & McCutcheon, 1986), and personal knowledge (Connelly & Clandinin, 1984).

Research on teacher planning and interactive thinking also encompasses the work on implicit theories. From a social-psychological standpoint, to understand teacher planning is to understand how teachers transform and interpret knowledge, formulate intentions, and act upon that knowledge and those intentions. Research in this area reveals a great deal about which features of subject matter; students; and physical, administrative, and political environments actually influence classroom instruction (Clark, 1988).

The Influence of Context: Focus on Classroom Social Action

The teachers' implicit theory has been supported by findings in the cognitive psychological framework of expertise (Berliner, 1987). Hofer (1986) discussed the schema concept, which assumes that the actions of teachers are structured by means of schemata (networks of knowledge for understanding practice). The basic ideas of the schema construct are that knowledge of a situation enables one to perceive similarities between situations and that knowledge can differ in detail. Thus, attention to teacher thinking has revealed the need for more extensive investigation of the various domains of teacher knowledge and of the relationships among teacher knowledge (practical theories), interactive thinking, and classroom action. Parker (1987) has issued a clear warning about the problem of an over-psychological view of teaching and the danger of studying teacher thinking in isolation from its social and professional context. Shulman (1986b) has also been critical of the limited range of teaching activities through which teacher thoughts have been investigated. In his view, the choice of these teaching activities has been tied too closely to a behavioristic view of teaching with too little acknowledgment of the validity of the inside perspective of the teacher. The emerging image of the teacher as a constructivist who continually builds, elaborates on, and tests his/her personal theory of the world indicates that most cognitive research on teaching has ignored teachers' cognitive processes and ways of processing information interactively. From this social

cognitive perspective, as teachers construct knowledge they will be influenced by the group of individuals with whom they interact (Vygotsky, 1987). Consequently, the relationships among teachers' personal and practical theories of teaching, interactive thinking, and classroom action are guiding present studies of teachers' thinking. In addition, by taking on the role of research informants teachers have become full partners in current ethnographic studies on teachers' thinking process.

.Theoretical Bases of the Study

Although research on teachers' thinking does not provide us with a comprehensive theoretical framework for thinking about teaching, a number of assumptions can be derived from previous research and theory in this field. These assumptions, which come from a variety of perspectives provide a holistic picture that makes it possible to make sense of teachers' performance in the context of the classroom. The scheme proposed here (see Figure 1) provides a holistic picture of a teacher's thinking and represents the multiple perspectives that make up the frame of reference in this study.

------ Insert Figure 1 about here ------

It explains the major factors of the study and assumed relationships among them and describes the basic epistemological assumptions that underlie the thinking behind this study.

Three basic characteristics define the proposed scheme. First, it is assumed that teaching is a complex, highly contextualized profession, involving a complex form of social interaction that varies depending on context. Therefore, what teachers do can never be comprehended solely in terms of teaching and learning academic subject matter. The formal curriculum of academic knowledge and skills has a counterpart "hidden curriculum" of values and behavior, which is embedded in the social and cultural systems of the school and classroom.

Second, there is no linear relationship among the components of the model. Teaching is assumed to be a cyclical, or spiralling process. There is no specific starting point in each cycle.

Third, teaching is a dynamic, on-going, social and dialectical process which is intended to change. Change in the outer layers (teachers' knowledge, beliefs, and values) is basically caused by the center of the cycle (teachers' action), although the factors coming from one's interpretation of the context can also cause changes in the outer layers. The concept of the teacher's culture as a creative, historical system of symbols and meaning is central to this change. The concept of culture is not limited only to verbal expression. Both verbal and nonverbal communication are culturally patterned even though the teacher may not be aware of it. The meaning the teacher gives to his/her experiences (actions) differs from culture to culture. In other words, the way a teacher of a particular culture (e.g., gender, ethnicity, class) categorizes and interprets his/her actions may be different from the way another teacher from another culture would view them. A teacher's past experience influences the meaning he/she attaches to present experience, which in turn affects future experience. An example of this phenomenon would be when highly reflective teaching results in essential changes in the teacher's knowledge and theories of actions.

Figure 1 also shows the basic elements of teaching and teachers' cognition. According to this framework, in order to explain teachers' behavior, it is necessary to look at the classroom as a social and cultural system characterized by reciprocity among participants and between the participants and the physical setting. The basic elements of teaching are teachers' knowledge, beliefs, and perceptions of their craft, which incorporate various students' reactions and perspectives. Skill in teaching rests on teachers' knowledge which can be divided into knowledge of curriculum, pedagogical knowledge, and knowledge about learners (Shulman, 1986a). Teachers' knowledge and beliefs move in a spiral toward more concrete levels of teaching which are prediction, action, and reflection. There is a direct relationship between teachers' knowledge and beliefs, and the way they interpret their practice, although much of the knowledge that teachers hold and act on is tacit. The beliefs, values, and norms that teachers come to have the most faith in and use most frequently to guide their practice are those consistent with predictions that have "worked" in the complex and demanding classroom arena.

While teachers' preactive plans (predictions) provide frameworks for what is possible or even likely to occur in classrooms in practice, these frameworks do not function as rigid scripts for teacher activity. Instead, in the interactive process of teaching in which cognition is translated into action, teachers engage in moment-to-moment decision making and problem solving based on their perceptions, practical knowledge, and judgments about the events. Teachers' metacognitive, purpose-driven behavior and/or reflection on the effect of an action helps them to modify their previous pedagogical concepts or to build a new pedagogical principle which, in turn, affects their future thinking, planning, and action.

METHODOLOGY

This study employed a naturalistic approach to study the sociocultural context and events that occurred in the life of a classroom with special regard to the social context and student-laden social actions that were shaped in the context of a sociocultural milieu. Along with most traditions in ethnographic or interpretive research, this study assumed that culture is central to understanding teacher cognition. It also incorporated several approaches in the interpretive research paradigm namely, cognitive anthropology, symbolic interactionist, and ecological anthropology. The study assumed that three aspects of human culture are central for understanding what goes on in the life of the teacher and his/her teaching processes. One aspect is related to the cognitive organization of the cultural knowledge of humans, which assumes that each bounded group or individual has a unique system of perceiving and organizing the world about them. This means that an individual acts on the basis of the meanings he/she have for earlier phases of his/her life. In addition, the existence of symbols, like language, enables individuals to construct meaning from objects and provides a foundation for their actions and behaviors as well as their ideas and values.

Another aspect of human culture involves the knowledge shared by particular bounded groups of individuals. It assumes that, through interaction, the individual constructs meaning. It also assumes that both verbal and nonverbal interpersonal interactions (signs and symbols) are culturally patterned (Philips, 1983) and that persons communicating in these culturally

patterned ways usually are not aware of this patterning (Erickson & Mohatt, 1982). Thus, wherever symbol systems are guides to action, they operate within a social context. This gives a symbol or sign its specific meaning, since a symbol or a sign can have one meaning in one social context and another in a different context. Social context, therefore, is a crucial element in comprehending what symbols signify (Applebaum, 1987).

The third aspect of cultural knowledge is formed by environment. As Steward (1936, cited in Hardesty, 1987) explained, environment and culture are not separate spheres; they are interdependent. In this view, neither environment nor culture is "given" but each is defined in terms of the other, and environment plays an active, not just a limiting or selective, role in human affairs (Hardesty, 1987, p. 270). Therefore, the influence of ecology on the culture of individuals should also be taken into consideration in understanding human behavior.

As a result, the basic ethnographic techniques and procedures (participant observation, informal interviews, and collecting and analyzing document) were triangulated with probing interviews about the teacher's life history, his knowledge and beliefs, and stimulated recall techniques.

The Participant

The participant in this study was a secondary school teacher (Ron) who teaches language arts to grades 6-12 at a Developmental Research School in a southeastern city. He holds undergraduate and master degrees in language arts and has sixteen years' of classroom experience, twelve of which have been at his present school. As a committed and successful teacher, Ron is highly regarded by his peers and the director of the school. He was nominated Middle School Teacher of the Year title in 1987 and won the National Honor Society's High School Teacher of the Year in 1990. Ron has been the chair of the language arts department at both his current and previous schools and serves on the administrative council at his current school, which is responsible for policy and procedure decisions on school discipline, scheduling, examinations, curriculum and instruction, and faculty governance. In addition to teaching language arts at his school, Ron is a reader for the College-Level Academic Skills Test.

The School and the Summer Program

The Developmental Research School is a small school that combines elementary, middle, and high school into one site. Since a primary purpose of the school is to serve as a research and developmental facility, the school chooses a student population that is relatively normally distributed in terms of socioeconomic factors and academic abilities. The school therefore enrolls an equal number of males and females, with 20% minority and and 80% non minority.

At the time of the study, the developmental school was experimenting with several restructuring initiatives, including block scheduling, integrated learning, alternative learning experiences, and team teaching. The summer school session, which served students from K-12, lasted for six weeks from June 22 until July 31. Teachers worked with students from 8:00 in the morning until 1:00 in the afternoon Monday through Thursday. During the six weeks session, teachers met once weekly as a group to discuss, plan, and share experiences, successes, and failures. Teachers who participated in this program were considered to be leaders in the restructuring process during the school year and were responsible for writing a final report regarding their assessment of the program.

Students who were enrolled for this program were those who had failed to meet the requirement for promotion to the next grade during the regular school year[3] . Their parents had received a letter from the school recommending that their children enroll in summer school. The summer school program was designed to focus on the four academic areas through an interdisciplinary team approach emphasizing individualized instruction on the subject(s) needing remedial work.

[3] According to school requirements, all middle school students must pass the four academic subjects (language arts, science, math, and social studies) in order to be promoted to the next grade. Consequently, all students who enrolled in the summer school program had failed at least one of the above subjects.

The Culture of the School

The Developmental Research School is committed to serve as an active university partner in the advancement of teaching, learning, and research on the behalf of the state. This commitment requires double role for the school. On the one hand, the school has to meet its role as a public school; on the other hand, it has to fulfill its role as part of a university committed to improving K-12 education in the state. These conflicting roles--a public school versus an experimental school--create the norms within the school system for establishing what is expected of its members.

Research Strategy

Data collection focused on three different aspects of teacher performance: the teacher's experiential world and his frame of reference; his knowledge, theories, and beliefs; and his preactive, interactive, and postactive or reflective thinking. Therefore, four primary sources of data were used: open-ended ethnographic interviews with the teacher; observations of his class with pre- and -post interviews; the teacher's notes, classroom materials, textbook, and other records related to students' performance; and stimulated recall.

Data were collected in a 12-week period, beginning at the end of the regular school term in May, 1992 and continuing until July, 1992. Between May, 1992 until June, 1992 four interviews (each about one hour and one-half) were conducted with Ron in his office and his classroom. When summer school began, Ron's classroom was observed every day for three consecutive weeks by the primary researcher. During the last three weeks they met weekly to discuss Ron's interactive teaching and his reflection on his action.

Interviews: The interviews were informal and open-ended. They were primarily focused on Ron's life history, including his knowledge, beliefs, values, and perceptions of teaching[4]. The basic strategy during interviews was to allow Ron to tell his own story in his

[4] The first interviews served as a data base for further questioning. The first level of questioning began with the most general questions. These general questions were followed gradually in further interviews by more specific questions. Examples of topics discussed during the first interviews include Ron's experience and background as a teacher and as a learner, professional development, images of himself and teaching, theories of teaching and learning, perception of his environment, role in curriculum design, etc. This line of questioning, then, was

own words. However, as he talked, probing questions would be asked in order to further elucidate the interpretations he was making being made by him[5]. An interview guide was prepared for each interview, all interviews were audio-taped and transcribed for further analysis, and auxiliary notes were taken after each interview. In addition to these in-depth interviews, several pre- and post-interviews were conducted before and after classroom observations. These interviews were short and informal and provided information on Ron's plan for the day, some descriptions of his interactive thinking, and his reactions to the lesson. These interviews were not tap-recorded directly; rather, written or mental notes were taken, which were later transcribed.

Observations: Observations took place in Ron's sixth- seventh- and eighth-grade language arts class in summer school beginning on June 22. The class combined to English and social studies, and the students were supposed to improve their reading and writing skills through a multidisciplinary class approach. With one exception, the first two weeks of observations took place for the entire period (8:00-10:30). During the third and final week this time was reduced to one-half hour. Observations were audio-taped and transcribed verbatim into the field notes, which concentrated primarily on collecting data that the tape recorder would miss[6]. During the period of observation, all of Ron's notes and classroom materials were collected together with textbooks and other records related to the students' performance.

Stimulated Recall Interviews: A review of the transcribed fieldnotes served to identify salient events that became the focus for stimulated recall interviews. Notes about an event were

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1. 2.

followed by more specific questions such as, "What is the relationship between you and the other staff in the language arts department", "How would you design or implement a curriculum", "How would you plan for your instruction", and so on.

[5] Examples of probing questions are as follows: "Did you say you became interested in teaching when you were in high school?" "So, how did you solve these problems?" "Give me an example of what you just said." Could you explain what do you mean by that?

[6] For example, the field-notes covered information on the chalk board and Ron's non-verbal gestures, movement around the room, and softly spoken dialogue.

read for Ron, and he was asked specific questions related to the episode[7]. Stimulated recall interviews were also audio-taped and transcribed for further analysis.

RESULTS AND DISCUSSION

The Three Aspects of Ron's Classroom: Context, Culture, and Social Action

In this section the first day of Ron's classroom was described from the researcher's points of view. The attempt was made to describe the culture of the classroom and its normal social action for the reader to create a context for the further interpretations.

The first day of summer school starts at eight o'clock in the morning in the school auditorium, where all the students and teachers are gathered to be assigned to their classrooms. Ron and one of his colleagues are assigned to a group of twelve students at the middle school level. The two teachers divide students into two groups, the seventh and eighth graders in one group and sixth graders in another group. According to the summer schedule, the two groups are supposed to switch classes at 10:30, when the sixth graders leave Ron's classroom to go to the math and science classroom and the seventh and eighth graders come from the math and science classroom to Ron's classroom for lessons on language arts and social studies. Each class period then will be about two hours, in contrast to the regular school year period, which is about fifty minutes.

Ron and his group are assigned to a large classroom located on at the first floor of the building with 30 to 35 chairs arranged in rows. The classroom decorations, equipment, and materials indicate that it is a social studies classroom, not a language arts classroom. Eight students comprise the sixth grade: four boys, two blacks and two white, and four girls, two blacks and two whites. Three of the students have failed math; two have failed science and math; one has failed math, science, and English; and two has failed in all four areas (math,

[7] Example questions for this part of the study included: What were you thinking in this segment? Were you thinking of any alternative actions or strategies at that time? Have you thought about this event since then? What was the content of your thinking?

science, English, and social studies). Boys sit in the back rows while girls appear to prefer the front rows. Ron has no objection or comments related to the students' seating.

Throughout the first hour, Ron gives a detailed description of all rules and regulations, from attendance to lunch time to make-up assignments and grades. Students write their schedule, grading criteria, and activities for reading, writing, and language skills in their notebooks. Ron reminds them to do so. After an hour or so, all three chalkboards are full of what Ron wrote about what students are expected to do. It looks very structured and organized. Everything that they might need to know is somewhere on the board. The only thing that is missing is the materials that they need for a language arts class, but it takes only a few minutes for Ron to leave the classroom and come back with stacks of reading books, textbooks, magazines, and dictionaries. When he is out, students are still busy writing the schedule on their notebooks.

Although Ron has spent a good amount of time explaining class routines, there is still plenty of time left, so he decides to go over the vocabulary list for the week. So far, Ron has been authoritarian, structured, and organized, but this does not last long. Ron smoothly shifts to a negotiation mode. Instead of choosing the words for spelling, he gives the students the opportunity to pick them. They also negotiate the weekly test day, the day for assignment checks, the rules for make-up tests and so on.

> Ron: Tests are going to be when?
> (Students mention different days and time, a few agreeing on Thursday)
> Ron: Thursday, you want it to be first thing when you are coming in, or you want it to be after a little while?
> (Students together): The first thing to get over with.
> Ron: First thing to get over with (looks at students to make sure that they are all agree with the decision) around 9:00 o'clock? (waits for students' responses but students are not responding) Okay, we will put question mark on it. You may need more time. And when I'm going to check your definitions?

The quiet and passive class very soon becomes a noisy and active one. Ron becomes very lenient and let students talk to him about different subjects while he is distributing the textbooks and dictionaries. Students move around, change seats, gather around him, go back to their seats, even choose to work in groups while he asks them to work individually. But Ron is

calm and permissive and lets them set the rules for themselves. He only uses eye contact to stop those students who become disruptive to others or spend time doing nothing.

At 10:30, when the class ends for this group, all of them more or less have adapted to their new social context. Ron's verbal and non-verbal interactions with students, especially during vocabulary and reading activities in this session, have established classroom order and the role all of them should play in producing a comfortable social environment.

> Ron: Now for the words, which one can I circle that you would be responsible for spelling? All short ones, right? (laughs) How about "accurate" (circles the word before students respond to him)?
> Students together: Yea.
> Ron: So, the circle means spelling words
> (He goes on and picks several other words from the list on the board and circles them for spelling.)
> Ron: All right, let's see how many we've got for spelling. (He counts: one, two, three, four, five, six.)
> Student: How many should we have?
> Ron: Well, we've got twenty-one words; that includes all these (refers to the words on the board). Let's do one more for spelling.
> Student: What do you mean by spelling?
> Ron: We are going to have two parts for tests. One for spelling and one for vocabulary
> Student: Oh. . . .
> Ron: Okay, do you remember where you are going to find these words?
> Student: We need dictionaries.
> Ron: Yes, you need a dictionary for that. So, I'm going to give you the next 45 minutes to start writing some notes. If you want to pair up or team up and help each other, that would be alright. But everybody has to have their own notes. We can't share notes.

In the following sessions, Ron continues to give students the opportunity to negotiate lesson plans. He becomes more flexible in his daily plans and continuously adjusts the time and the flow of the activities to the level of the students, their interests, and their reactions to lessons.

> Ron (while examining the slides that he is going to show to the class): It has three parts and you have to explore the words.
> Student: Isn't it better to watch them all once and then see it again?
> Ron: You want to do that? You want just to go over it fast and then the next time explore. . . . Yes, because they have some words, and I have to go over the words
> Student: Then, we have to go slowly.
> Ron: Okay, you want to see it twice; we'll do that.

On other occasions, he changes the "in class assignment" to a library assignment following the students' suggestions or changes the test format (e.g., for spelling tests, instead of reading words to the students, he gives them a hand-out on which they correct the misspelled words) to meet all students' interests.

During interactions with the students, Ron plays other roles, too. He becomes very supportive and carefully tries to build self-esteem in students by using a minimum of negative

feedback, refining their incorrect responses, and asking them questions when he is sure that they know the answers.

> Ron asks one of the students to read the ending statement that he has written for a play.
> Student: It's kind of stupid but, (he reads)....You are breaking my heart; I'll wait, but all I want to tell you is that I love you, Mom.
> Ron: That's good, that's not stupid, I don't think that's stupid. That's kind of nice in a way. You know why he might say that, because sometimes it's kind of hard for us to say "I love you" to somebody. Then you feel that you're acting foolish, and it's not cool to say that. But in the situation that he (the character of the story) was in, I think it was pretty good to say things like that.

Ron also becomes a kind and understanding "father" when it comes to a student who Ron thinks has a potential for getting into trouble. He follows up on informal conversations with her, initiates discussions that could have some lessons for her, and chats with her whenever she approaches him.

A few weeks later in Ron's classroom, one can see a classroom that is quite different from the classroom at the beginning of the session. The chairs are no longer in rows. Boys has created a circle for themselves in the back of the class. Girls are sitting closer, although they still keep the rows. Computers are moved toward the middle of the classroom, and several chairs have been arranged around them. The two tables on the right side of the classroom were full of novels, magazines, and textbooks. The slide projectors, tape recorders, and video tape monitor occupied one spot. Another table had been added to the others to hold two boxes labelled as reading cards. The room becomes a language arts classroom within a social studies room.

A dynamic group of students can be observed who talk a lot, actively participating in activities, enthusiastically typing their journals on the computers, and sincerely helping each other study for tests. They certainly look happier, although they still have problems in reading, writing, and speaking.

Making Sense of Ron's "Making Sense"

Ron's beliefs and images of himself are associated with his biography, experiences in classrooms, relationships with teachers and other authority figures, recollections of how it felt to be a student in a classroom. His life experience influences the way he thinks of himself and the

way he teaches. An examination of his experiential world can shed light on how he thinks and why he is doing what he is doing in the classroom.

Ron's Experiences as a Learner

Ron received his elementary, secondary, and college education in the southeastern United States. He developed a love for reading when he was in third grade under the guidance of his third-grade teacher, a person whom he remembers now very well. Ron's love for reading and literature grew as he went to middle and high school. He talks about the years in middle and high school as successful years in several respects. He believes that he was lucky in that he received a lot of help from his teachers during these formative years. Ron's remarks about his teachers indicate that their role in his teenage life was not limited to academic areas. He looks at them as pioneers who broke down cultural values and beliefs and could give him the final "okay" for following his love and interest in literature. He believes that his teachers, especially his male teachers, were his role models in the absence of his father in his life.

As a learner, Ron was an intelligent boy who could impress his teachers intellectually and receive their attention. Ron's decision to become a language arts teacher was formed in those years. He then decided to continue his undergraduate and graduate studies in this area and become a teacher, a profession that he very much enjoys today.

Ron's Experiences as a Teacher

Ron started his teaching career in a suburban secondary school where he taught language arts to grades 6-12 for six years. Ron assesses these years as years of experimentation and learning as well as years of success. He believes that his college training, especially graduate school, gave him more theory than application for the level that he taught later. Therefore, he had to experiment with everything to make sure that the theories could be applied in practice.

Ron became the department chair after two years of experience and spent the following four years as the chairman of the department of English for the only high school in the region. He also worked on several county-wide committees, where he participated in designing a new

middle school for the county. Therefore, Ron's teaching in these years influenced, and was affected by, his other duties as department chair. However, Ron, reflecting on his first two years of teaching, confesses that they were "not as good as he would have liked them to be." He sees these years as being difficult for variety of reasons.

> You know, one thing was that, in college, in the training institute, they give you a lot of theories especially in graduate school which do not always apply to the practical world. As a beginning teacher, and I was one of them, you usually get an assignment that either no one else wants, or it is so difficult perhaps because of some reason. It might be because you have to teach in a distant part of the school campus, which I had to do. I had to teach in a portable classroom which was far away from the faculty lounge and cafeteria and the library. I was also teaching a class in drama which I was prepared by education to teach but it was not a field that I was planning to make my full-time teaching. I did not plan to be a drama teacher for school. So there were some difficulties in the assignment and in the situation. . . . I was isolated in this portable classroom. I didn't communicate with the other teachers as much as I wanted to. I wouldn't see them in hallways.

Ron also talks about some of the good lessons that he learned from his first two years of teaching.

> I had some students who took advantage of me, younger and older students who I felt tried to get away with the things with me that they might not have tried with others. This was particularly true with the drama class where I did have some older students. They would try to be friends with me and share some personal and fun things with me. But I suspected that they would try to manipulate me, and I did hear that they thought that I was easy in some ways. So, there were some tensions as I had to sort of find my own space in a relationship with the various students. . . . So, I did, I learned quite a bit from it. I learned that I did like to feel close to my students personally and share and be fun, and enjoyed that part of it, but I knew that I had to be clear about what I expected of them. . . . I needed to learn about balancing between freedom and discipline. I think this is something that I'm constantly learning. I need to learn about my students and it takes time.

Ron developed his pedagogical knowledge during these years by experimenting in the classroom. Although he wishes that he had been better prepared in his training, Ron's overall assessment is that his early years of teaching were positive and rewarding.

In 1980, Ron came to his present school as one of the youngest teachers on the staff. In contrast to his previous school, Ron was not the only teacher in this school who held a master's degree, and almost everyone else in the school had more teaching experience than he. Therefore, Ron assumed a staff role rather than a leadership position in his new school, although this time he felt more confident and comfortable adjusting to the new environment. In addition to a position change, Ron also saw some contextual changes in the new school that he believes had some impact on his teaching and especially his thinking about his teaching. He

explains several differences between the two schools and the impact that these differences had on his teaching as follows:

> This was a smaller school, and I had to keep up with fewer students over the course of the career. This school really tends to have more students at the only slightly above average, many at the average, and quite a few below average. Whereas, the previous school we had more students at below average and average and really fewer at the above average. So I had a different ability level. The previous school system was very traditional. There were innovative teachers; there were innovative programs, but overall the system very traditional. Here in this school, there are many innovative teachers, many innovative programs. And the atmosphere was to reward innovation and experimentation, so I felt freer. I felt a sense of freedom.

While knowing that his ideas were valued allowed him to be more creative and feel a sense of freedom, Ron now thinks the major difference in the two schools is more his perception than reality. He now believes that he could have had the same freedom in his previous school if he had thought the way then that he is thinking now.

> Now, it may be as much a perception as reality. Because you are as free as you try to be. If I had tried more things in my previous school, perhaps I would have felt differently. Sometimes you feel that a person would not approve of your idea, particularly in that system. I had a principal that I knew was a bit of a problem. So, I may not have done something unless I really truly felt strongly about it. Whereas, here I may get an idea, I may not have strong feeling about it, but it is an atmosphere of "well let's try it," then I may kind of feel free to do it. So, I may act freer here.

In sum, Ron's personal experiences as a learner and as a teacher influence the way he thinks and the way he acts today. He brings with him a unique set of experiences and cognitions to his profession that, although they are implicit, underlie his thinking and his subsequent actions.

Ron's Rules for Making Sense: The Interpretive Framework for Reflective Practice

This section provides a general account of construction of Ron's values, beliefs, and theories of action; his preactive and interactive thinking; and his reflection on his action. Ron has confirmed the accuracy of the account given here and has not identified any significant omissions. He has also accepted the terminology used to label components of his perceptions and his theory in action.

Values, Beliefs, and Knowledge of Self

Ron's personal values and beliefs relate to and inform of his action. In his interviews, Ron talks about the way he sees himself as a teacher and as an individual. He refers to his teaching as playing roles. The metaphor of "actors" that Ron uses to define his role as a teacher

is influenced by the fact that he has taught drama for many years. He believes that the role of the teacher as an actor gives him a chance to separate himself as a person from himself as a teacher. In this way he can deal with the students' disrespect and rebellions and not take them personally. Ron realizes that this role demands a lot of flexibility on his part. Sometimes he has to be very strict and structured, while other times he has to be very lenient and supportive. He explains his action in relation to his students as follows:

> . . . . it gives a little bit of layer of something between you and the individual students. Now, on the other hand, you need to make a personal connection, too. So, you have to know when to make it personal. So, you have to be a little bit of everything. That's why I like the idea of being trained in a way that you can be flexible and adjust.

Ron also considers multiple roles for a teacher as he relates his personal experiences as a learner and teenager to his teaching role now. He views some of his former teachers as his role models, the people who influenced his life and taught him about literature and how to be enthusiastic and excited about it. Ron's view of himself as an individual also balances his professional role and his own preferences. Consistent with his beliefs and images of teachers as role models, he spends some of his time with students in extracurricular activities. He believes that these activities let him spend more time with students and help them a little more. He also gets personal satisfaction from these activities. Ron further believes that, although teaching is his career, it is not all of his life.

In general, through the years of experience as a teacher and also as an individual, Ron has developed and refined a personal philosophy that forms the foundation of his professional decisions and serves as a filter for him through which he constantly evaluates his actions. Ron ponders and works on methods that are consistent with these beliefs and values.

Knowledge and Theories of Action

Ron's knowledge of subject matter, curriculum and instruction, and students gives him a rich background from which he draws his highly reflective teaching. During the period of interviews and observations, Ron exhibited the complex construction of knowledge related to his subject matter, curriculum, pedagogy, and students.

Ron's statement of his goal for language arts seems to capture various elements of his perception. Speaking of students, he stated that

> I want them to enjoy it; I want them to enjoy all parts of English and language arts. I want them to have a feeling that these materials are worth knowing, that there's a source of information and also a source of enjoyment for them. I'd like the idea of them producing material and enjoying it. I'm concerned about the student who cannot read well, but I don't spend all of my time worrying about reading or all my time worrying about writing, or all my time worrying about speaking and listening. I spend more time planning a way, trying to find a way to make it more enjoyable and perhaps more accessible for them, to help them understand it and maybe appreciate it.

These statements reflect two conceptions of English. There is an academic view of English as a discipline in which English is considered a source of joy and excitement; and there is also a holistic view of English, to which Ron feels he has an obligation that combines the academic and personal views. In the holistic view, English is a tool to address other domains of knowledge. Both views coexist within Ron's view of English as a subject matter.

Ron's view of English as a discipline is clearly developed. He believes that English as a discipline should not focus on one aspect of language at a time. Reading, writing, and speaking all should be combined in some way as a whole approach. The separation among these aspects is artificial, although teaching each aspect separately might be easier to us. Regarding the appreciation of English, Ron speaks primarily of students' interest and giving them the opportunity to create their own products and engage in activities that enable them to appreciate the value of literature.

In practice, Ron is able to balance both dimensions of the subject matter simultaneously by creating audio-visual activities that give students who have problems with reading a chance of being exposed to literature through audio-visual devices. For example, every one or two sessions during reading time, instead of assigning silent reading or having students read aloud, Ron brought tapes of excerpts from famous and exciting novels or poems for the students. The audio tapes, which provided simultaneous slides for important passages in stories or poems made the stories more exciting and interesting. Ron also uses the images of students and their visualizations before introducing the symbolic interpretation of language in order to promote student enthusiasm for academic activities such as writing. For instance, in one activity, Ron

asked students to draw a picture of their ideal city and then write about what they had drawn. In this activity, the students with writing problems did extremely well.

Ron's experience with program planning as a department chair both in his previous school and his present school has given him useful exposure to a different mode of curriculum work. His experiences as a department chair of English have brought into focus three important ideas about curriculum development. First, he regards teachers and students as the main parts of the curriculum. Second, he is quite clear about the limitation of a traditional curriculum that emphasizes only one aspect of language arts. Third, he recognizes that, if teachers are allowed to develop their own curriculum, they can match the parts of the curriculum with the students' needs.

> . . . . you know when you are given a specific curriculum, there is a philosophy behind that curriculum. It might be that the curriculum is based on the whole language approach, but it is more likely that is some form of traditional approach. It might be the "Great Book" curriculum, or it might be the basic skills curriculum, or it might be a chronological study of literature curriculum. Each of those are good to certain extent. If you concentrate only on minimum competency, basic skills, then what would happen to the literature, because it is seldom that you would use Chester or Shakespeare or an American author or any author in a field where you just concentrate on minimum competency. It is easier to use things that were created to test those basic skills. At the same time if you had all the great books, even if you have Dickens, you have Hemingway, each one is great in its way, but if you only taught the great books, then wouldn't you be missing some writing skills? Because you are just reading and responding to the literature . . . . So, if you have a chance to write your own curriculum, you can see what kind of students you have, then you can also vary it; some days you can teach basic skills; other days you can concentrate on literature; other days you may want to talk about the history and American literature where you go from colonial to modern. So, you have more freedom if you do it yourself.

Ron also endorses the idea of team planning and curriculum development. In his interviews, Ron talked about his ideal vision of working with all teachers from elementary to middle and secondary school and even college level to come up with a comprehensive and cross-grade level curriculum.

<u>On the Role of Meaning and Understanding in Learning</u>

Ron's "learning theory" is a simple and appealing one. Although he does not directly talk about his learning theory, his statements about students and teaching imply his theory of learning. Ron believes that learning occurs when students understand things and can relate them to their real life. In his teaching he uses real world examples and takes advantage of opportunities to relate language arts to everyday life. This belief is also reflected in Ron's

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emphasis on the holistic approach to language arts. The relation of learning to real life is embedded in Ron's statements about what he expects from students.

> I understand the value of knowing, for example, the authors, and I appreciate it, but to me that's less important than understanding concepts, particularly the real life things. When we study poetry, and we study literature, we talk about all of the history. We talk about the structure of it. But we also talk about the meaning of it, what students get from it, and how they can apply it.

Finally, the most developed feature of Ron' knowledge is his view of students. Ron's view of students comes into all of his thinking from subject matter and planning to reflection. Ron's view of students is positive, sympathetic, and appreciative, and it is influenced by Ron's experience as a learner. Ron talks about students and his concerns for them in all of his interviews. Much of Ron's reflective thinking also relates to students and their reactions to the materials and activities.

> I have pretty different expectations about what I should see. I think in general I'm looking for everyone to make an effort to improve from where they are. Given the fact that there are some that are not in a too good shape, I want them to be in a better shape when they leave me. . . . I prefer to give them the opportunity to be responsible for their own learning. Otherwise, I'm a robot talking up there. . . . The thing that I'd like to stay away from is too much stereotyping. It's fine for the good students because they're probably going to do well in the class, but for those who had bad reputations, I don't always like to hear from another teacher or make up my mind that this kid is not going to perform well. I would prefer that the student and I be able to establish a relationship based on what is happening now.

In sum, it is clear that Ron knows what he wants to accomplish in his teaching, and his purposes make sense in light of his understanding of his students and his social milieu. Different components of Ron's knowledge are so tied together and are so related to his actions that they cannot be identified without a close and analytical examination of his thought processes.

Flexible Planning and Decision-Laden Work

Both ethnographic interviews and observation data indicated that Ron engaged in at least two different types of planning: term/unit planning and daily planning. Both term plans and daily plans were written in sketchy outline forms and were supported by Ron's well- developed mental scripts. Ron's written plan for the summer program (term plan) consisted of the class schedule, student assessment procedures and grading system, names of the reading books and

materials, and a list of the skills to be mastered, together with instructional strategies in reading, writing, and grammar.

Daily plans were mental for the most part and were written by Ron on the board a few minutes before the class started every day. The written plans on the board were limited to the daily schedule, presented in order, and they reminded students about class activities or assignments.

The ethnographic and pre- and post-observation interviews with Ron provided useful information about the procedures and the components of Ron's pre-planning thinking (see figures 2 and 3).

------ Insert Figure 2 and 3 about here ------

According to this segment of the data, at the time of planning, Ron simultaneously thought about several different factors and considered them for his planning, although he actually started the process by reviewing the content of his folders from previous years. The sequence of his thinking processes about these factors at the time of planning, however, was not quite clear. In all his interviews, Ron showed that he was conscious of his general goals and his holistic philosophy of language arts when he was planning. Ron's perception about himself, his values, and his beliefs also influenced his prior-thinking about lessons, although he was not conscious of them. For example, the idea of flexibility for teachers made Ron decide to keep his lesson plans open for students' reactions and for changes.

Some of the other factors that had major influence on Ron's decisions about daily and term planning were the social context of the classroom, students' background and ability level, the focus of the subject matter (content) with respect to the curriculum, and the materials available.

Although Ron never mentioned writing specific objectives for his plans or even thinking about them, it was evident in his written plans and also in his explanation about his expectations for students that he kept the state minimum competencies for language arts in mind when he

was planning for the course. For example, in one of his post interviews, Ron discussed his expectations for journal writing.

> Question: What are you looking for when you ask students to write in journals?
> Ron: Well, it is an on-going activity. If they respond to their reading, they will get the highest grade. Another option is creative writing, such as poem. If they do that then they get the second highest grade. But if they just record the daily events, they will receive the lowest grade.

In spite of the fact that Ron had available routines for different instructional activities, management techniques, pedagogical methods, executive strategies, and time allocation methods, he also spent some time adjusting them to the new context in his daily plans. Ron's implicit guidelines in adjusting to the new context were negative feedback from students, unsatisfactory performance by students, and the belief that students' cues are good judges of pedagogy. For example, Ron mentioned in stimulated recall interviews and also in his reflective report for the summer program that he had to think about time and pace activities in order to adjust them to the new context of summer school with its restructuring initiatives.

In summary, Ron constructed his term/unit plan and daily plans guided by several factors. Some of these factors existed in Ron's repertoire of knowledge and experiences, and he attended to them unconsciously. Because of the efficient routines that were available to Ron, it was difficult to identify which factor came first in his thinking processes. However, it was evident that Ron's previous experiences, perceptions, knowledge of context and curriculum, and values and beliefs all influenced planning.

Knowledge-in-Action: Continually Taking Context into Account

Ron's decision making during interactive teaching arose from three related elements in the classroom: the students and their reactions and behavior, the flow and time of the activities, and the materials and media. Ron's decisions were based on his interpretation of the information that he received during interactions with different sources available to him. The major influence on Ron's decision making was the new restructured context of the classroom (a small group of summer school students, a multidisciplinary approach to a language arts, a longer period of time

for class sessions, and the team work with the other teacher, and the problem of students' motivation), which demanded changes in his well-developed routine.

Ron's interactive thinking was also greatly affected by his thinking about students and contextual factors. Most of the decisions Ron made during interactive teaching were on the basis of student's reactions to specific materials, tests, or social/interactive activities; students involvement or behavior problems; and judgments about the appropriate feedback to students' answers or responses. Ron's sources of information for his decisions about students were his knowledge about students, his observations, and, sometimes, students' verbal expressions. For example, in the following episode, as Ron clarified in his post-interview, his sources of data were a combination of his background knowledge about the student and the context and also his direct observation during the interaction.

> Ron: Okay, what kind of water? (Ron responds to one of the student's answer for his question about a gulf) a gulf is also salt water, and they are surrounded by land.
> (J) : what do you have for the gulf? (O. C. J. has his hand up. He doesn't raise his hand so often. In fact, this is perhaps the third time during this week that he has had his hand up)
>
> Student (J): Skinny streams of water.
> Ron: That's correct in a way. If it helps you to think of it. Usually though it's not like a stream that we have in the backyard that is real thin. The stream is pretty big, but, compared to the ocean, it is small.

In the above episode Ron's decision is based on the information he has about the student, his self-esteem, his ability level, and also the fact that this particular student does not raise his hand very often. In the following interaction, Ron depends primarily on his observations during the interaction.

> Ron: Should we form one group or two groups?
> Student: Two
> Ron: (looks at the students for a second and continues with an uncertain voice and gesture) Should it be a black and white or. . . . (he looks at students again). (Students especially one of the black girls looks very unhappy. She uses facial expressions to show her bitterness. Ron immediately receives her message and says). . . . Let's try boys and girls.
> Student: (no objection)

Another type of decision Ron made quite often in his interactive teaching was related to the pace of the activities. As Ron confirmed, his decisions in this respect were influenced by the problems he was experiencing in terms of adjusting the time and the pace of the activities for a small group of students in a fairly long period of time. These types of decisions became less

frequent toward the end of the observation period. Ron's well-developed routines reduced the number of decisions he had to make about management and pedagogy and gave him a chance to focus on his decisions on the students and the flow of the activities.

Reflective Thinking

Reflection-in-action, the heart of Ron's interactive thinking, gave life to his teaching and was clearly demonstrated in his smooth performance of on-going tasks. Ron's reflection-in-action began when his routine procedures produced some surprises, either through students' reactions or environmental constraints. This was the time that Ron started to make adjustments of the situation. Sometimes the changes were in the strategies that he had developed during years of teaching and were accessible to him at the time. But most often, he used students' reactions and suggestions as a source of change. In such cases, Ron immediately evaluated the suggested changes with his existing repertoire of cases, and came up with a judgment that let him either use the suggested change or reject it or combine it with one of his own. All these decisions happened in a few seconds so that no interruption was apparent in his performance. These reflections in-action, successful or unsuccessful, became a subject of Ron's thinking after the class for more reflection and analysis. The following episode demonstrated one of these reflections-in-action in Ron's interactive and post-active thinking.

> Ron: All right, I'm going to let you work on your own for this hand-out. I want each of you to work on your own. Then I'll come around and help you if you need help. There are two different questions, and I'm going to give you the resources of two books, *World Geography Today* and *Change Your*. Also Mr. S. has some encyclopedia here.
> (Although Ron asks students to work individually, and there are enough books for them, the students, especially the boys get into a circle and start working together. Girls also get closer to each other but try to work individually.)
> Ron: You want to work in small groups?
> Student: Yea
> Ron: Okay, you may work in small group. That way you can divide up the task.
> (Ron: I decided to give students the chance of choosing whether they wanted to work individually or in group. Post-interview)

Ron's reflection was not limited to interactive teaching. In his simulated recall and post-observation interviews, Ron directly and indirectly indicated that he thought about the flow of the activities, the sequence of the events, students' reactions to different activities, their performance on tests and assignments, and their motivation and interest in learning language

arts. In his reflection Ron first evaluated the event to make a judgment about it. Then, if he considered the event unsuccessful ("did not go well"), he further analyzed it to decide how he could improve it.

Ron also reflected on the entire program as a new experiment and analyzed his plans and actions, generating a list of strategies for his future planning and action. The following conversation shows the content of Ron's thinking about his plans and actions during the fifth week of classes.

> Question: What are the things that you have thought about during the last few weeks?
> Ron: I really have only thought about this summer experience and what I would do differently next summer. And the things as I'm trying to accomplish by the end of the project .... I'm thinking about the things I want to accomplish that I haven't accomplished yet and what I would do next summer differently to prepare for this group. So I'm really learning from what happened this summer.
> Question: What are the things you want to do differently?
> Ron: Well, I probably want to do more projects and have them work on accomplishing either a written project or some other kind of project that will be more tangible. It would be some reports, some written reports, but perhaps even some projects that involve art or music and video or sculpture or other things that they would be really more active in creating. Perhaps they could write their own family history with drawings of the various family members. Perhaps they could research a country and have a map that they colored and created, and some brief facts on the history of people and their culture and so forth. A project that I didn't do here, but I did in my regular school year was a newspaper where they tried to create their own newspaper. I think even with a small class like this, they could create one newspaper with three or four pages and each person taking a different part. Then at the end of the summer we would have a newspaper to show the parents or teacher or whatever. I would hope to get some ideas from projects. This is a kind of an opportunity with a small class and a longer period of time, but I feel like I didn't take advantage of it this time. With the small group I can do more projects, I did basically the traditional assignment but with individualized emphasis of the course. But I think next time I'll do more projects.

CONCLUSION

Although the findings of this study are specific to Ron, his situation, and the social context of his teaching, they raise some important issues related to teachers' thinking and teaching processes. They also broaden our understanding of the teaching-learning process as a meaningful social action.

In general, the study presents a view of the teacher that is different from traditional view. Examination of Ron's thinking and teaching processes revealed that the complexity, uncertainty, and uniqueness of events in the classroom require the teacher to reflect in the midst of his action and make professional judgments and decisions during interactive teaching. Ron's immediate decisions in the midst of action relies on his knowledge, which is the product of his attempt to make sense of the experiences he encounters in the class. This on-going process of sense

making or process of planning, acting, and reflecting is different from the technical and traditional view of teaching that requires a formal and detailed pre-planning and a technical evaluation of action after implementation of the plan.

Ron's processes of thinking and teaching also illustrates the degree to which teaching is affected by the context, its realities, and its complexities. Most of Ron's decisions before, during, and after instruction are based on his interpretations of the social and cultural context of the classroom and the school. A vast knowledge about social and cultural context helps Ron examine his decisions in light of the consequences they entail. These findings are also in contrast with the traditional view of teaching that emphasizes on teacher's decontextualized knowledge and skills and formalization of teaching procedures. Ron's practical knowledge and his thought process during action demonstrated his understanding of the social and cultural context in which he belongs. Table 1 summaries Ron's view of his teaching and compares it with traditional view of teaching.

----------Insert Table 1 about here-------

More specifically, the study has suggested that there is an interactive relationship among Ron's components of thinking and teaching. These components, which consist of Ron's experiences as a learner and as a teacher; his philosophy and frame of reference; his knowledge about students, context, content, and curricula; his beliefs and theories of action; his pre-planning and decision making; and his interactive and reflective thinking interact in cyclical fashion of planning, action, reflection, and evaluation in Ron's performance. This finding is similar to those that research on expert/novice teachers has suggested about both the size and the organization of knowledge bases in expert teachers (e.g., Berliner, 1986; Calderhead, 1983, 1987).

The study also illustrates the importance of the context in which teaching and learning take place. The social environment of teaching, for example, was a basic source of Ron's reflection-in-action. Ron continuously adjusted his actions to fit it into the social context of the classroom. His knowledge of subject matter, pedagogy, and curriculum provided a rich

background for him to decide about what to teach and how to teach. The examination of the teacher's thought process and his actions in the social and cultural context confirm the idea that thoughts, taken-for-granted knowledge, and actions are complex, interactive, and on-going in the classroom.

Ron's experiences as a learner and as a teacher influence the way he teaches and the way he thinks about himself as a teacher. Many of Ron's decisions during his pre-planning and interactive teaching were based on his interpretations and judgment about his previous experiences. Ron's knowledge, beliefs, and theories of action appeared to provide a framework within which Ron planned, implemented, and evaluated his lessons. Classroom observations provided evidence of a consistency between Ron's perception of himself, his educational goals, and his philosophy of learning and his actual practice. This finding is similar to what Zeichner, Tabachnick, and Densmore (1987) and several other interpretive researchers (e.g., Clandinin & Connelly, 1986, 1987, 1988; Elbaz, 1981, 1991; Janesick, 1982; Marland, 1986) have found about teachers' implicit theories and the way they use these theories to attach meaning to their environment and to guide their actions.

Ron's pre-planning is also influenced by his philosophy of teaching language arts; the role he considers for himself as a teacher; the role he considers for his students; and his knowledge of context, content, curriculum, pedagogy, and students. Ron's pre-planning was in the form of cyclical mental scripts and did not seem to fit into step-by-step linear and rational models for planning (Clark & Yinger 1987, Yinger, 1979). Ron's term planning focused on outlines of content, selection of the materials and media, activities, and student assessment. His daily plans were comprised of daily activities, assignments, and reminders of the tests or other assignments.

Although Ron came to the class with a mental plan of what he was going to do and how, he constantly changed his plans upon receiving additional information from the social context of the classroom. These on-the-spot decisions later on became a subject of Ron's post-reflection. As a result of these reflections, he refined his plans for when would be used again.

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Table 1: Comparison between the Teacher's Traditional View of Teaching and the Teacher's View of his Teaching.

Traditional View of Teaching	Teacher's View of Teacher
• Planning is formal and detailed and is separated from instruction	• Planning is an on-going activity and relies heavily on teacher's instantaneous decisions
• Implementing the plan is important in achieving the instructional goals	• Social context of the classroom is important in achieving the instructional goals
• Objectives determine focus of instruction	• Context determine focus of instruction
• Teaching is an instrumental act	• Teaching is an interactive act
• Teaching is a rational decision making process, which is based on the teacher's technical knowledge	• Teaching relies on non-rational decision making process which is based on the teacher's tacit knowledge

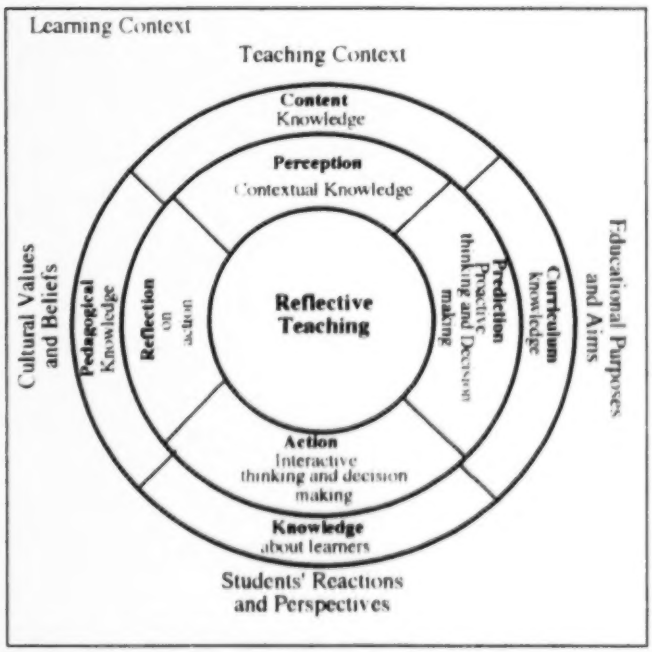

Figure 1 Conceptual Framework for Research on Teaching

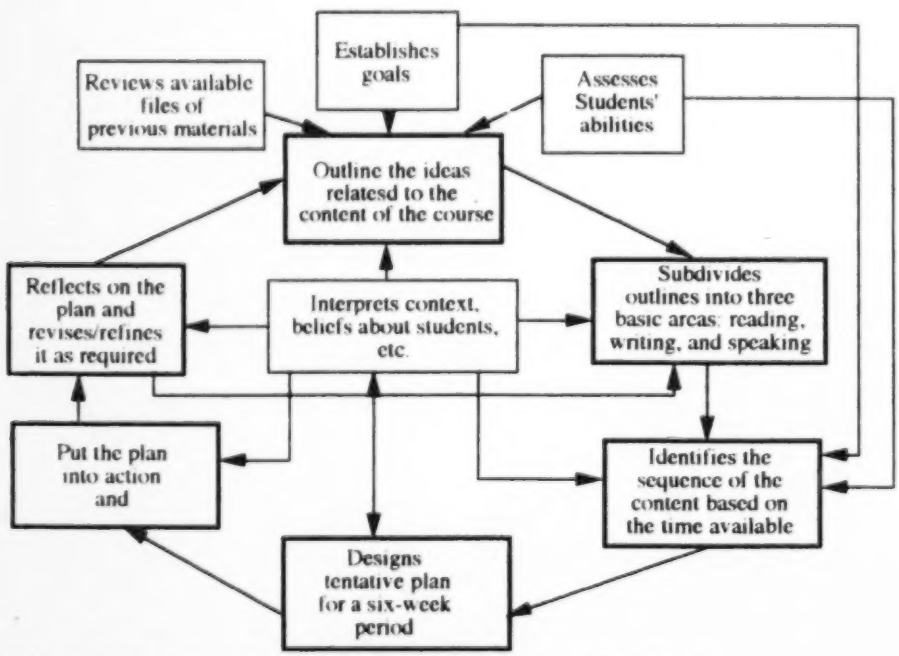

Figure 2 Ron's Elements and Process of Thinking during Planning for a New Course

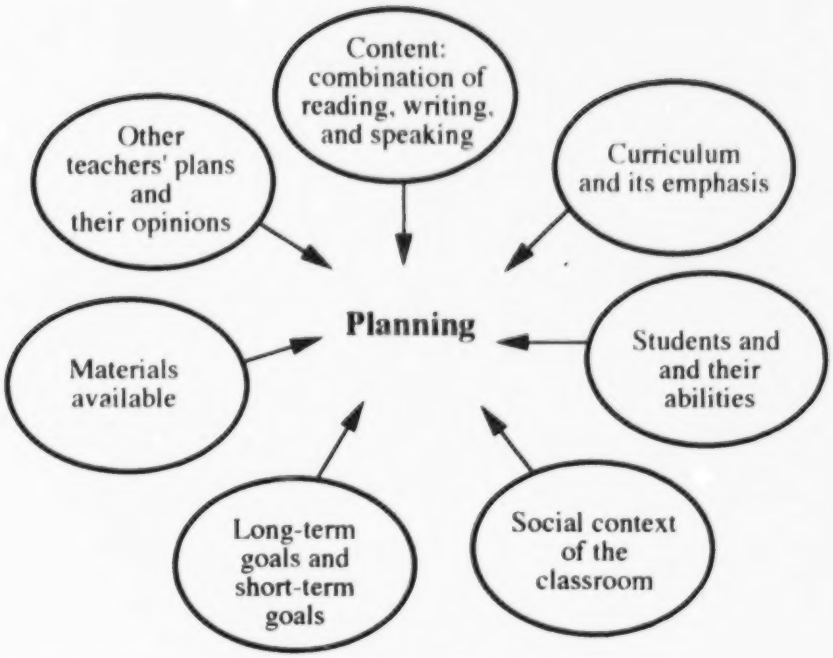
Content: combination of reading, writing, and speaking
Other teachers' plans and their opinions
Curriculum and its emphasis
Planning
Materials available
Students and and their abilities
Long-term goals and short-term goals
Social context of the classroom

Figure 2. Elements Considered by Ron in his Planning